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EXAMINER

MORNHINWEG, JEFFREY P

ART UNIT

PAPER NUMBER

4152

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|-----------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/576,325 | BERTOCCHI, ALESSANDRO | |
| | Examiner | Art Unit | |
| | JEFFREY MORNHINWEG | 4152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2006/05/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it exceeds the 150 word limit.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

6. Claim 1 recites the limitation "said machine" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 4152

7. Claim 1 recites the limitation "said food pulps" in line 5. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 3 recites the limitation "the rotors driving means" in line 18. There is insufficient antecedent basis for this limitation in the claim.

9. Claims 5-7 recite "Machine according to claim 2," which is vague and indefinite in that claim 2 is drawn to a process not a machine. Subsequent examination is based on the assumption that claims 5-7 are dependent from claim 3, which is an independent claim drawn to a machine.

10. Claims 6 and 7 recite the limitation "said first and second motor" in lines 1-2. If claims 6 and 7 are actually intended to depend from claim 2, then there is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 4152

13. **Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertocchi (U.S. 5,283,078, hereinafter “Bertocchi I”) in view of Bertocchi (U.S. 4,643,085, IT 1199392, hereinafter “Bertocchi II”) and Pepin et al. (FR 2,147,449).**

14. Regarding claim 1, Bertocchi I discloses a process for the extraction of juice from food pulp comprising a softening section having a first stator and a first rotor that rotates at a first speed (C2, L47-C3, L2).

15. Bertocchi I does not disclose an extracting section having a second stator and a second rotor that rotates at a second speed; speed-adjusting means operatively connected to rotor-driving means; or the process step of actuating the rotor-driving means according to a predetermined ratio between the first and second speeds in response to an input parameter relative to the consistency of the food pulp.

16. However, Bertocchi II discloses an extracting section having a second stator (C6, L30-L31, “cage...which carries the perforated metal strainer”) and a second rotor (C5, L29) that rotates at a second speed. Bertocchi II further discloses speed-adjusting means operatively connected to rotor-driving means (C5, L27-L28, C3, L64-L65).

17. It would have been obvious to one having ordinary skill in the art to combine the softening section disclosed in Bertocchi I with the extracting section and speed-adjusting means operatively connected to rotor-driving means disclosed in Bertocchi II. Bertocchi I indicates the extracting section in the form of a strainer according to Bertocchi II is to be used in conjunction with the softening section disclosed in Bertocchi I (Bertocchi I, C3, L34-L36, L48-51), which a skilled practitioner would thus incorporate. Such combination would necessarily include incorporating the speed-adjusting means operatively connected to rotor-driving means disclosed

Art Unit: 4152

in Bertocchi II, since the speed-adjustment mechanism was an integral component of the invention disclosed in Bertocchi II (C3, L64-L65). While Bertocchi I indicates "[t]he device can function as an autonomous unit or it can be mounted as an inlet feeder on the same shaft as a strainer from which it receives motorization and of which it becomes an integral part," (C3, L48-L51) such integration is not imperative. A skilled practitioner would recognize the option of combining the device from Bertocchi I as an autonomous unit with that of Bertocchi II as a second autonomous unit, where both units would have independent rotor control capable of operating at a first speed and a second speed.

18. Further, Pepin et al. discloses actuating rotor-driving means according to a predetermined ratio between the first and second speeds in response to an input parameter relative to the consistency of the food pulp (P5, L31-L35, "All the described operations can be operated by remote control and directed by an operator, or to be automated following determined parameters by advance, according to the production zones, of the climatic conditions or the type of the fruits to treat, and following the juices which one wishes to obtain.").

19. It would have been obvious to one having ordinary skill in the art to combine the softening and extracting sections of Bertocchi I and Bertocchi II, respectively, with the actuation mechanism and pre-determined input parameters as disclosed in Pepin et al. Pepin et al. discloses a process similar to the combination as disclosed in Bertocchi I and Bertocchi II, where the rotor-stator assemblies are replaced with screw extruders (Pepin et al., P3, L24-L35). However, the functionality of extracting juice from fruit is a common aim between both processes (Bertocchi I, Abstract; Pepin et al., P1, L1-L3). Automation as disclosed in Pepin et al. (P5, L31-L35) would improve the efficiency of the combined process disclosed in Bertocchi I and Bertocchi II, such

Art Unit: 4152

efficiency being a goal of Bertocchi II which notes one of the advantages of the disclosed invention is maximization of juice extracted from a given fruit (Bertocchi II, C3, L62-L64). A skilled practitioner would thus incorporate actuation of the rotor-driving means according to a predetermined ratio for the first and second speeds based on the consistency of the food pulp when practicing the process as disclosed in Bertocchi II and Bertocchi I.

20. As for claim 2, Pepin et al. discloses that automation may be operated by remote control (P5, L31-L32). Such automation via remote control constitutes speed-adjusting means comprising means for receiving an input parameter through a processor, which would be necessary for automation. Pepin et al. also discloses that operations can be directed by an operator (P5, L31-L32), which would require the step of communicating to the processor an input parameter. As a result of such direction by an operator, the subsequent step of actuating the rotor-driving means according to a predetermined input parameter would be completed.

21. Regarding claim 3, Bertocchi I discloses a machine for extracting juice from food pulp comprising a softening section having a first stator and a first motor that causes a first rotor to rotate at a first speed (C2, L47-C3, L2; C3, L48-L50, where a motor is implied).

22. Bertocchi I does not disclose an extracting section having a second stator and a second motor that causes a second rotor to rotate at a second speed; or a device for adjusting the speed and the efficiency of the machine having speed-adjusting means operatively connected to the first and second motors, whereby it is possible to operate the first and second motor by the speed-adjusting means according to a predetermined ratio between the first and the second speed in response to an input parameter relative to the consistency of the food pulp.

Art Unit: 4152

23. However, Bertocchi II discloses a machine for extracting juice from food pulp comprising an extracting section having a second stator (C6, L30-L31, "cage...which carries the perforated metal strainer") and a second motor (C5, L10-L11) that causes a second rotor to rotate at a second speed (C5, L29). Bertocchi II further discloses a device for adjusting the speed and the efficiency of the machine having speed-adjusting means operatively connected to the second motor.

24. It would have been obvious to one having ordinary skill in the art to combine the softening section disclosed in Bertocchi I with the extracting section and the device for adjusting the speed and the efficiency of the machine disclosed in Bertocchi II. Bertocchi I indicates the extracting section in the form of a strainer according to Bertocchi II is to be used in conjunction with the softening section disclosed in Bertocchi I (Bertocchi I, C3, L34-L36, L48-51), which a skilled practitioner would thus incorporate. Such combination would necessarily include incorporating the device for adjusting the speed and the efficiency of the machine disclosed in Bertocchi II, since the speed adjustment mechanism was an integral component of the invention disclosed in Bertocchi II (C3, L64-L65). While Bertocchi I indicates "[t]he device can function as an autonomous unit or it can be mounted as an inlet feeder on the same shaft as a strainer from which it receives motorization and of which it becomes an integral part," (C3, L48-L51) such integration is not imperative. A skilled practitioner would recognize the option of combining the device from Bertocchi I as an autonomous unit with that of Bertocchi II as a second autonomous unit, where both units would have independent rotor control capable of operating at a first speed and a second speed.

Art Unit: 4152

25. Further, Pepin et al. discloses a device for adjusting the speed and the efficiency of the machine having speed-adjusting means operatively connected to the first and second motors, whereby it is possible to operate the first and second motor by the speed-adjusting means according to a predetermined ratio between the first and the second speed in response to an input parameter relative to the consistency of the food pulp (P5, L31-L35; P3, L32-L35, “The various screws that equipment comprises have each one a step which corresponds [to an operation] to carry out. These screws are [on] tees on shafts 3 and 4 coaxial with the enclosure and pulled by motors 5 and 6....”).

26. It would have been obvious to one having ordinary skill in the art to combine the softening and extracting sections and motors of Bertocchi I and Bertocchi II, respectively, with the speed-adjusting device and pre-determined input parameters as disclosed in Pepin et al. Pepin et al. discloses a process similar to the combination of machines as disclosed in Bertocchi I and Bertocchi II, where the rotor-stator assemblies are replaced with screw extruders (Pepin et al., P3, L24-L35). However, the functionality of extracting juice from fruit is a common aim between both processes (Bertocchi I, Abstract; Pepin et al., P1, L1-L3). Automation as disclosed in Pepin et al. (P5, L31-L35) would improve the efficiency of the combined process disclosed in Bertocchi I and Bertocchi II, such efficiency being a goal of Bertocchi II which notes one of the advantages of the disclosed invention is maximization of juice extracted from a given fruit (Bertocchi II, C3, L62-L64). A skilled practitioner would thus incorporate a device for adjusting the speed and efficiency of the first and second motors according to a predetermined ratio for the first and second speeds based on the consistency of the food pulp when operating a machine as disclosed in Bertocchi II and Bertocchi I.

Art Unit: 4152

27. As for claim 4, Pepin et al. discloses that automation may be operated by remote control (P5, L31-L32). Such automation via remote control constitutes speed-adjusting means comprising means capable of receiving an input parameter through a processor, which would be necessary for automation. Pepin et al. also discloses that operations can be directed by an operator (P5, L31-L32), which would require means for setting an input parameter in the processor. As a result of direction by an operator, the subsequent actuation of the rotor-driving means according to a predetermined input parameter would be initiated.

28. As for claim 6, Pepin et al. discloses a machine wherein the first and second motors have axes shifted from each other (P4, L33-L34, describing motors 50 and 51 in Fig. 2).

29. As for claim 7, Pepin et al. discloses a machine wherein the first and second motors are coaxial (P3, L33-L35, describing motors 5 and 6 in Fig. 1).

30. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertocchi (U.S. 5,283,078, hereinafter “Bertocchi I”) in view of Bertocchi (U.S. 4,643,085, hereinafter “Bertocchi II”) and Pepin et al. (FR 2,147,449) as applied to claim 3 above, and further in view of Johnston (U.S. 6,550,376 B1).**

31. Bertocchi I, Bertocchi II and Pepin et al. disclose a machine according to claim 3, as described previously.

32. Bertocchi I, Bertocchi II and Pepin et al. do not disclose the speed-adjusting means as either frequency variators or mechanical gearboxes.

33. However, Johnston discloses use of a mechanical gearbox (C2, L50-L53).

34. It would have been obvious to one having ordinary skill in the art to combine the mechanical gearbox disclosed in Johnston with the machine disclosed in Bertocchi I, Bertocchi II

Art Unit: 4152

and Pepin et al. Johnston is drawn to a similar machine as that disclosed in Bertocchi I, Bertocchi II and Pepin et al., which is also used for extracting juice from food pulp (C1, L7-L12).

Mechanical gearboxes are also well known in the art for adjusting output from a motor to a desired speed. A skilled practitioner would incorporate a mechanical gearbox for adjusting the speed of the machine disclosed in Bertocchi I, Bertocchi II and Pepin et al.

35. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertocchi (U.S. 5,283,078, hereinafter “Bertocchi I”) in view of Bertocchi (U.S. 4,643,085, hereinafter “Bertocchi II”) and Pepin et al. (FR 2,147,449) as applied to claim 4 above, and further in view of Wallace et al. (U.S. 3,778,209).

36. Bertocchi I, Bertocchi II and Pepin et al. disclose a machine according to claim 4, as described previously, wherein the first rotor is mounted on a first shaft and the second motor is mounted on a second shaft, the shafts being coaxial. Pepin et al. further discloses the two shafts as being capable of having speeds independent from each other and of bearing different workloads (P2, L12-L17, “The invention also has as an object an equipment for the realization of the method above. This equipment comprises an enclosure, provided with sluice to each one of its ends and includes/understands notably shaped members of screw whose step is different following the stage of the processing, the shafts of [driving] of these screws being able to turn at different rates.”).

37. Bertocchi I, Bertocchi II and Pepin et al. do not disclose the two shafts being pivotally engaged within or on one another.

38. However, Wallace et al. discloses two shafts being pivotally engaged within one another (C2, L63-L66).

Art Unit: 4152

39. It would have been obvious to one having ordinary skill in the art to incorporate the engagement mechanism disclosed in Wallace et al. with the machine disclosed in Bertocchi I, Bertocchi II, and Pepin et al. Wallace et al. is directed toward a similar food processing apparatus involving extruding a food product wherein two rotating shafts engaged with one another are needed to rotate independently. A skill practitioner would thus incorporate the mechanism disclosed in Wallace et al. at the point of engagement between the two shafts of the machine disclosed in Bertocchi I, Bertocchi II, and Pepin et al. such that the two shafts may support one another, yet rotate independently. Further, while Pepin et al. does not specifically disclose two shafts which are pivotally engaged within on another, disclosure is made to the effect that the ends of the two independently rotating shafts are in close proximity (Fig. 1, shaft 3 and shaft 4 to immediate left of shutter 18) and that shutter 18 is optional (P4, L11-L13, “Between each screw conventional shutters represented schematically into 17[, 18, 19, 20, and 21] can be optionally envisaged....”) While such shafts may be left to operate without additional support as disclosed in Fig. 2 between shafts 37 and 40, a skilled practitioner would seek to stabilize the two shafts by reinforcing them to one another at the junction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY MORNHINWEG whose telephone number is (571) 270-5272. The examiner can normally be reached on Monday-Friday, 8:00AM-5:30PM, EST, alternate Fridays.

Art Unit: 4152

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1783

/J. M./
Examiner, Art Unit 4152